

**WHAT IS CLAIMED IS:**

1. A method of generating a backplane parity value comprising:  
 receiving a data stream at a communications interface of a telecommunications  
 system, wherein said data stream comprises a first plurality of words;  
 rearranging said data stream into a second plurality of words, wherein  
 said second plurality of words include a relock word, and  
 said relock word is configured to allow said telecommunications  
 system to synchronize with said data stream; and  
 for each of said second plurality of words, determining if said each of said  
 second plurality of words should be included in a parity calculation by  
 determining if said each of said second plurality of words is said relock  
 word, and  
 ignoring said each of said second plurality of words, if said each of  
 said second plurality of words is said relock word, and  
 including said each of said second plurality of words in said parity  
 calculation, otherwise.

2. The method of claim 1, wherein said each of said words is a byte.

3. The method of claim 2, wherein said parity calculation comprises:  
 calculating said backplane parity value by performing a bit-wise exclusive-or  
 between said words.

4. The method of claim 1, wherein said first plurality of words is  
 organized as a first frame having a first frame format and said second plurality of  
 words is organized as a second frame having a second frame format.

5. The method of claim 4, wherein said second frame includes said relock  
 word.

6. The method of claim 1, wherein  
said telecommunications system includes a switching matrix coupled to said  
communications interface, and  
said switching matrix switches during said relock word.

7. A method of transmitting information across a switching matrix  
comprising:  
receiving information, wherein  
said information is in a transmission unit,  
said transmission unit is divided into a plurality of words, and  
said words are arranged in a first format;  
rearranging a plurality of said words into a second format; and  
generating a parity value from at least one of said words.

8. The method of claim 7, wherein said information is received as an  
optical signal.

9. The method of claim 7, wherein said transmission unit is a frame.

10. The method of claim 9, wherein said frame is a SONET frame.

11. The method of claim 9, wherein said rearranging rearranges said  
transmission unit into a backplane frame.

12. The method of claim 7, wherein said parity value is a backplane parity  
byte.

13. The method of claim 12, wherein  
each one of said words is a byte, and  
said generating comprises calculating said backplane parity value by  
performing a bit-wise exclusive-or between said words.

Sol  
a3

14. The method of claim 7, wherein said second format allows said switching matrix to be switched errorlessly.

Sol  
a3

15. The method of claim 7, wherein said second format includes a relock word.

Sol  
a3

16. The method of claim 15, wherein said second format includes a relock word.

Sol  
a3

17. The method of claim 16, wherein said switching matrix is switched during a period of time that said relock words are traversing said switching matrix.

add  
a4